

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/568,999  
Source: FWP  
Date Processed by STIC: 3/1/06

# ***ENTERED***



*1FWP*

## RAW SEQUENCE LISTING

DATE: 03/01/2006

PATENT APPLICATION: US/10/568,999

TIME: 14:03:33

Input Set : A:\PC25634.txt

Output Set: N:\CRF4\03012006\J568999.raw

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3 <110> APPLICANT: Hardham, John Morgan
4     Dreier, Kimberly Jean
5     Krishnan, Rajendra
6     McGavin, David Ross
8 <120> TITLE OF INVENTION: Vaccine for Periodontal Disease
10 <130> FILE REFERENCE: PC25634
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/568,999
C--> 12 <141> CURRENT FILING DATE: 2006-02-21
12 <160> NUMBER OF SEQ ID NOS: 17
14 <170> SOFTWARE: PatentIn version 3.2
16 <210> SEQ ID NO: 1
17 <211> LENGTH: 21
18 <212> TYPE: DNA
19 <213> ORGANISM: Artificial
21 <220> FEATURE:
22 <223> OTHER INFORMATION: Sequencing Primer
24 <400> SEQUENCE: 1
25 ggattagata ccctggtagt c                                21
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29 <211> LENGTH: 19
30 <212> TYPE: DNA
31 <213> ORGANISM: Artificial
33 <220> FEATURE:
34 <223> OTHER INFORMATION: Sequencing Primer
36 <400> SEQUENCE: 2
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41 <211> LENGTH: 550
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43 <213> ORGANISM: Bacteroides sp.
45 <400> SEQUENCE: 3
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50 cccgcacaag cggaggaaca tgtggtttta ttcgatgata cgcgaggaac cttacccggg      180
52 cttaaattgc gctggctttt accggaaaac gtattttctt cggaccagcg tgaagggtgct      240
54 gcatggttgt cgtcagctcg tgccgtgagg tgtcggctta agtgccataa cgagcgcaac      300
56 ccttatcttt agttactaac agttttgctg aggactctaa agagactgcc gtcgtaagat      360
58 gcgaggaagg tggggatgac gtcaaatacag cacggccctt acgtccgggg ctacacacgt      420
60 gttacaatgg ggagcacagc aggttgctac acggcgacgt gatgccaatc cgtaaaactc      480
62 ctctcagttc ggatcgaagt ctgcaacccg acttcgtgaa gctggattcg ctagtaatcg      540
64 cgcacagcc
67 <210> SEQ ID NO: 4
68 <211> LENGTH: 560

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69 &lt;212&gt; TYPE: DNA

70 &lt;213&gt; ORGANISM: Porphyromonas levii

72 &lt;400&gt; SEQUENCE: 4

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73 cgctgtaa ac gatgattact cagagtatgc gatataatgt atgctctcaa gcgaaagcgt      60
75 taagtaatcc acctggggag tacgtcggca acgatgaaac tcaaagggaat tgacgggggc      120
77 ccgcacaagc ggaggaacat gtggtttaat tcgatgatac gcgaggaacc ttacctggga      180
79 ttgaaatgta tatgccggta tcccgaaagg ggtgctattc acttcgggtga cgtatatgta      240
81 ggtgctgcat ggttgctcgtc agctcgtgcc gtgaggtgtc ggcttaagtg ccataacgag      300
83 cgcaaccctt atcgtcagtt gctagcaggt aaagctgagg actctggcga gactgccgtc      360
85 gtaaggcgag aggaagggtg ggatgacgtc aaatcagcac ggcccttata tccagggcga      420
87 cacacgtgtt acaatggtga ggacaaaggg tcgctaccgg gtgacgggat gccaatctcc      480
89 aaacctcacc tcagttcgga tcggagtcgt caactcgact ccgtgaagct ggattcgcta      540
91 gtaatcgccg atcagccatg
93

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94 &lt;210&gt; SEQ ID NO: 5

95 &lt;211&gt; LENGTH: 520

96 &lt;212&gt; TYPE: DNA

97 &lt;213&gt; ORGANISM: Tannerella forsythensis

99 &lt;400&gt; SEQUENCE: 5

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100 tctaggaggt ttgcgatata cagtaagctc tacagcgaaa gcgttaagta atccacctgg      60
102 ggagracgcc ggcaacgggtg aaactcaaag gaattgacgg gggcccgcac aagcggagga      120
104 acatgtgggt taattcgatg atacgcgagg aaccttaccg gggattgaaa tgtagacgac      180
106 ggacagttag agctgtcttc ccttcggggc gtctatgtag gtgctgcatg gttgtcgtca      240
108 gctcgtgccg tgaggtgtcg gcttaagtgc cataacgagc gcaaccctga ctgtcagttg      300
110 ctaacagggtt aagctgagga ctctggcggg actgccggcg taagctgtga ggaagggttg      360
112 gatgacgtca aatcagcacg gcccttacat ccggggcgac acacgtgtta caatggcagg      420
114 gacaaagggc agctaccggg cgaccggatg ccaatctcca aacctgtct cagttcggat      480
116 cggagtctgc aactcgactc cgtgaagctg gattcgctag
118

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119 &lt;210&gt; SEQ ID NO: 6

120 &lt;211&gt; LENGTH: 1496

121 &lt;212&gt; TYPE: DNA

122 &lt;213&gt; ORGANISM: Bacteroides sp.

124 &lt;400&gt; SEQUENCE: 6

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125 aggcttacac atgcaagtcg aggggcagca ttatcttagc ttgctaagat agatggcgac      60
127 cggcgccagg gtgagtaaca cgtatccaac cttccggtta ctcggggata ggctttcgaa      120
129 agaaagatta ataccgatg ttgcgtatct ttctcctgaa agatacgcca aaggattccg      180
131 gtaaccgatg gggatgcgtt ccattaggca gttggcgggg taacggccca ccaaaccctc      240
133 gatggatagg ggttctgaga ggaagggtcc ccacattgga actgagacac ggtccaaact      300
135 cctacgggag gcagcagtgga ggaatattgg tcaatggacg gaagtctgaa ccagccaagt      360
137 agcgtgaagg atgactgccc tctgggttgt aaacttcttt tatacgggaa taacatgagg      420
139 tacgcgtacc ttattgcatg taccgttatg aataagcatc ggctaactcc gtgccagcag      480
141 ccgcggtaat acggaggatg cgagcggtat ccggatttat tgggtttaaa gggagcgtag      540
143 gtgggatatt aagtcagctg tgaaagtttg gggctcaacc ttaaaattgc agttgatact      600
145 ggtttccttg agtacggtac aggtgggcgg aattcgtggt gtacgggtga aatgcttaga      660
147 tatcacgaag aactccgatc gcgaaggcag ctcaccgggc cggaactgac actgatgctc      720
149 gaaagtgcgg gtatcaaaca ggattagata ccctggtagt ccgcacagta aacgatgaat      780
151 actcgtgtt tgcatcacac tgtaagcggc caagcgaaag cgtaagtat tccacctggg      840
153 gagtacgccg gcaacgggtg aactcaaagg aattgacggg ggcccgcaca agcggaggaa      900
155 catgtggttt aattcgatga tacgcgagga accttaccgg ggcttaaatt gcgctggctt      960
157 ttaccggaaa cgggtattttc ttccggaccag cgtgaagggtg ctgcatgggt gtcgtcagct      1020

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159 cgtgccgtga ggtgtcggt taagtgccat aacgagcgca acccttatct ttagttacta 1080
161 acagttttgc tgaggactct aaagagactg ccgtcgtaag atgcgaggaa ggtggggatg 1140
163 acgtcaaadc agcacggccc ttacgtccgg ggctacacac gtgttacaat ggggagcaca 1200
165 gcaggttgct acacggcgac gtgatgccaa tccgtaaaac tcctctcagt tcggatcgaa 1260
167 gtctgcaacc cgacttcgtg aagctggatt cgctagtaat cgcgcacag ccacggcgcg 1320
169 gtgaatacgt tcccgggcct tgtacacacc gcccgtaacg ccatgaaagc cgggggtacc 1380
171 tgaagtacgt aaccgcgagg atcgctcctag ggtaaacctg gtgattgggg ctaagtcgta 1440
173 acaaggtagc cgtaccggaa ggtgcggctg gaacacctcc tttctggagc gatgcc 1496
176 <210> SEQ ID NO: 7
177 <211> LENGTH: 563
178 <212> TYPE: DNA
179 <213> ORGANISM: Bacteroides sp.
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184 agtattccac ctggggagta cgccggcaac ggtgaaactc aaaggaattg acggggggccc 120
186 gcacaagcgg aggaacatgt ggtttaattc gatgatacgc gaggaacctt acccgggctt 180
188 aaattgcgct ggcttttacc ggaaacggta tttcttcgg accagcgtga aggtgctgca 240
190 tggttgtcgt cagctcgtgc cgtgaggtgt cggcttaagt gccataacga gcgcaacctt 300
192 tatctttagt tactaacagt ttgctgagg actctaaaga gactgccgtc gtaagatgcg 360
194 aggaaggtgg ggatgacgtc aaatcagcac ggcccttacg tccggggcta cacacgtgtt 420
196 acaatgggga gcacagcagg ttgtacacg gcgacgtgat gccaatccgt aaaactcctc 480
198 tcagttcgga tcgaagtctg caaccgcact tcgtgaagct ggattcgcta gtaatcgcg 540
200 atcagccacg gcgcggtgaa tac 563
203 <210> SEQ ID NO: 8
204 <211> LENGTH: 563
205 <212> TYPE: DNA
206 <213> ORGANISM: Bacteroides sp.
208 <400> SEQUENCE: 8
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211 agtattccac ctggggagta cgccggcaac ggtgaaactc aaaggaattg acggggggccc 120
213 gcacaagcgg aggaacatgt ggtttaattc gatgatacgc gaggaacctt acccgggctt 180
215 aaattgcgct ggcttttacc ggaaacggta tttcttcgg accagcgtga aggtgctgca 240
217 tggttgtcgt cagctcgtgc cgtgaggtgt cggcttaagt gccataacga gcgcaacctt 300
219 tatctttagt tactaacagt ttgctgagg actctaaaga gactgccgtc gtaagatgcg 360
221 aggaaggtgg ggatgacgtc aaatcagcac ggcccttacg tccggggcta cacacgtgtt 420
223 acaatgggga gcacagcagg ttgtacacg gcgacgtgat gccaatccgt aaaactcctc 480
225 tcagttcgga tcgaagtctg caaccgcact tcgtgaagct ggattcgcta gtaatcgcg 540
227 atcagccacg gcgcggtgaa tac 563
230 <210> SEQ ID NO: 9
231 <211> LENGTH: 565
232 <212> TYPE: DNA
233 <213> ORGANISM: Bacteroides sp.
235 <400> SEQUENCE: 9
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238 ttaagtattc cacctgggga gtacgccggc aacggtgaaa ctcaaaggaa ttgacggggg 120
240 cccgcacaag cggaggaaca tgtggtttaa ttgatgata cgcgaggaa cttaccgggg 180
242 cttaaattgc gctggctttt accggaacg gtattttctt cggaccagcg tgaaggtgct 240
244 gcatggttgt cgtcagctcg tgccgtgagg tgcgggctta agtgccataa cgagcgcaac 300
246 ccttatcttt agttactaac agttttgctg aggactctaa agagactgcc gtcgtaagat 360

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248 gcgaggaagg tgggggatgac gtcaaatacag cacggccctt acgtccgggg ctacacacgt      420
250 gttacaatgg ggagcacagc aggttgctac acggcgacgt gatgccaatc cgtaaaactc      480
252 ctctcagttc ggatcgaagt ctgcaacccg acttcgtgaa gctggattcg ctagtaatcg      540
254 cgcatacaacc acggcgcggt gaata                                           565
257 <210> SEQ ID NO: 10
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259 <212> TYPE: DNA
260 <213> ORGANISM: Bacteroides sp.
262 <400> SEQUENCE: 10
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265 taagtattcc acctggggag tacgccggca acggtgaaac tcaaaggaat tgacgggggc      120
267 ccgcacaagc ggaggaacat gtggtttaat tcgatgatac gcgaggaacc ttaccgggc      180
269 ttaaattgcy ctggctttta ccggaacggg tattttcttc ggaccagcgt gaaggtgctg      240
271 catggttgct gtcagctcgt gccgtgaggt gtcggcttaa gtgccataac gagcgcaacc      300
273 cttatcttta gttactaaca gttttgctga ggactctaaa gagactgccg tcgtaagatg      360
275 cgaggaaggt ggggatgacg tcaaatacag acggccctta cgtccggggc tacacacgtg      420
277 ttacaatggg gagcacagca gggttgctaca cggcgacgtg atgccaatcc gtaaaactcc      480
279 tctcagttcg gatcgaagtc tgcaacccga cttcgtgaag ctggattcgc tagtaatcgc      540
281 gcatcaacca cggcgcggtg aata                                           564
284 <210> SEQ ID NO: 11
285 <211> LENGTH: 566
286 <212> TYPE: DNA
287 <213> ORGANISM: Bacteroides sp.
290 <220> FEATURE:
291 <221> NAME/KEY: misc_feature
292 <222> LOCATION: (547)..(547)
293 <223> OTHER INFORMATION: n is a, c, g, or t
295 <220> FEATURE:
296 <221> NAME/KEY: misc_feature
297 <222> LOCATION: (555)..(555)
298 <223> OTHER INFORMATION: n is a, c, g, or t
300 <400> SEQUENCE: 11
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303 gttaagtatt ccacctgggg agtacgccgg caacggtgaa actcaaagga attgacgggg      120
305 gcccgacaaa gcggaggaac atgtggttta attcgatgat acgcgaggaa ccttaccggg      180
307 gcttaaattg cgctggcttt taccggaaac ggtattttct tcggaccagc gtgaaggtgc      240
309 tgcattggtg tcgtcagctc gtgccgtgag gtgtcggctt aagtgccata acgagcgcaa      300
311 cccttatctt tagttactaa cagttttgct gaggactcta aagagactgc cgtcgtaaga      360
313 tgcgaggaag gtggggatga cgtcaaatac gcacggccct tacgtccggg gctacacacg      420
315 tgttacaatg gggagcacag cagggtgcta cacggcgacg tgatgccaat ccgtaaaact      480
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323 <211> LENGTH: 565
324 <212> TYPE: DNA
325 <213> ORGANISM: Bacteroides sp.
327 <400> SEQUENCE: 12
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330 ttaagtattc cacctgggga gtacgccggc aacggtgaaa ctcaaaggaa ttgacggggg      120

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332 cccgcacaag cggaggaaca tgtggtttta ttcgatgata cgcgaggaac cttacccggg 180
334 cttaaattgc gctggctttt accggaaacg gtattttctt cggaccagcg tgaagggtgct 240
336 gcatggttgt cgtcagctcg tgcctgagg tgcggctta agtgccataa cgagcgcaac 300
338 ccttatcttt agttactaac agttttgctg aggactctaa agagactgcc gtcgtaagat 360
340 gcgaggaagg tggggatgac gtcaaatcag cagggccctt acgtccgggg ctacacacgt 420
342 gttacaatgg ggagcacagc aggttgctac acggcgacgt gatgccaatc cgtaaaactc 480
344 ctctcagttc ggatcgaagt ctgcaaccgc acttcgtgaa gctggattcg ctagtaatcg 540
346 cgcacagcc acggcgcggt gaata 565
349 <210> SEQ ID NO: 13
350 <211> LENGTH: 565
351 <212> TYPE: DNA
352 <213> ORGANISM: Bacteroides sp.
354 <400> SEQUENCE: 13
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357 taagtattcc acctggggag tacgccggca acggtgaaac tcaaaggaat tgacgggggc 120
359 ccgcacaagc ggaggaacat gtggtttaat tcgatgatac gcgaggaacc ttacccgggc 180
361 ttaaattgcg ctggctttta ccggaaacgg tattttcttc ggaccagcgt gaagggtgctg 240
363 catggttgtc gtcagctcgt gccgtgaggt gtcggcttaa gtgccataac gagcgcaacc 300
365 cttatcttta gttacttaaa gttttgctga ggactctaaa gagactgccg tcgtaagatg 360
367 cgaggaagggt ggggatgacg tcaaatcagc acggccctta cgtccggggc tacacacgtg 420
369 ttacaatggg gagcacagca ggttgctaca cggcgacgtg atgccaatcc gtaaaactcc 480
371 tctcagttcg gatcgaagtc tgcaaccgcga cttcgtgaag ctggattcgc tagtaatcgc 540
373 gcatcagcca cggcgcggtg aatac 565
376 <210> SEQ ID NO: 14
377 <211> LENGTH: 564
378 <212> TYPE: DNA
379 <213> ORGANISM: Bacteroides sp.
381 <400> SEQUENCE: 14
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384 aagtattcca cctggggagt acgccggcaa cggtgaaact caaaggaatt gacgggggccc 120
386 ccgcacaagc gaggaacatg tggtttaatt cgatgatacg cgaggaacct taccggggct 180
388 taaattgcgc tggcttttac ccgaaacgggt attttcttcg gaccagcgtg aagggtgctgc 240
390 atggttgtcg tcagctcgtg ccgtgaggtg tcggcttaag tgccataacg agcgcaacccc 300
392 ttatctttag ttactaacag ttttgctgag gactctaaag agactgccgt cgtaagatgc 360
394 gaggaagggt gggatgacgt caaatcagca cggcccttac gtccggggct acacacgtgt 420
396 tacaatgggg agcacagcag gttgctacac ggcgacgtga tgccaatccg taaaactcct 480
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400 catcagccac ggcgcggtga atac 564
403 <210> SEQ ID NO: 15
404 <211> LENGTH: 565
405 <212> TYPE: DNA
406 <213> ORGANISM: Bacteroides sp.
408 <400> SEQUENCE: 15
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413 ccgcacaagc ggaggaacat gtggtttaat tcgatgatac gcgaggaacc ttacccgggc 180
415 ttaaattgcg ctggctttta ccggaaacgg tattttcttc ggaccagcgt gaagggtgctg 240
417 catggttgtc gtcagctcgt gccgtgaggt gtcggcttaa gtgccataac gagcgcaacc 300
419 cttatcttta gttactaaca gttttgctga ggactctaaa gagactgccg tcgtaagatg 360

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:11; N Pos. 547,555

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,16,17

**VERIFICATION SUMMARY**

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L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:319 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:540